Type: Poster Presentation

Final Abstract Number: 57.024
Session: Virology and Viral Infections (Non-HIV) I
Date: Friday, April 4, 2014
Time: 12:45-14:15
Room: Ballroom

Initial combining lamivudine and adefovir dipivoxil and lamivudine/entecavir monotherapy in hepatitis B e antigen-positive chronic hepatitis B with high viral load

J. You[1], H.E. Liu[1], H.Y. Chen[1], X. Feng[1], L. Zhuang[2], W.B. Yang[1], H. Sriplung[3], A. Geater[3], V. Chongsuvivatwong[3], S.J. Ma[4], Y.H. Che[5], J.H. Huang[6], S.M. Yan[7], R.Y. Zhang[1], S.F. Rao[1]

[1] *The First Affiliated Hospital of Kunming Medical University, Kunming, China*
[2] *The Third People's Hospital of Kunming, Kunming, China*
[3] *Faculty of Medicine, Prince of Songkla University, Hat Yai, Songkhla, Thailand*
[4] *Haiyuan Medical College, Kunming Medical University, Kunming, China*
[5] *The First People's Hospital of Kunming, Kunming, Kunming, China*
[6] *The Yunnan General Hospital of The Chinese People's Armed Police Forces, Kunming, China*
[7] *The Third People's Hospital of Yunnan Province, Kunming, China*

Background: Long-term treatment with nucleos(t)ide analogues (NUCs) is highly effective but HBeAg seroconversion and HBsAg loss are very rare and unsatisfied event in CHB patients with high viral load and, the resistance mutation and high relapse rates block benefit from antiviral treatment as well. The aim of the present study is to evaluate the efficacy and safety of a new therapeutic strategy initial combining Lamivudine(LAM) and Adefovir dipivoxil(ADV) in patients with HBeAg-positive chronic hepatitis B(CHB).

Methods & Materials: One hundred and Eighty-two treatment-naive CHB patients with HBeAg-positive and HBVDNA$\geq 10^5$copies/ml were included and randomly divided into three treatment groups, LAM monotherapy, entecavir(ETV) monotherapy, and LAM+ADV combination therapy. The patients in LAM+ADV group were treated with combination LAM(100 mg/day) plus ADV(10 mg/day). LAM and ETV group received LAM(100 mg/day) and ETV(0.5 mg/day) alone respectively. Serum levels of ALT, creatinine, HBsAg, HBeAg and HBV viral load, together with genotypic resistence were analyzed at 0,12,24,48,104 weeks, respectively.

Results: Of the 182 patients, the majority(82.5%) had serum levels of HBVDNA over 10^7copies/ml. Baseline characteristics as for HBV viral load, HBsAg and HBeAg titer, median age, serum levels of ALT and creatinine were comparable between three groups. No significant differences in the rates of HBVDNA undetectable(<1000 copies/ml), HBeAg seroconversion, and ALT normalization were found between LAM+ADV and ETV group at 12,24,48 and 104 weeks($p > 0.05$). However, these parameters were significant higher in LAM+ADV and ETV group than those of LAM monotherapy group, all with p value less than 0.05,0.01 and 0.001. Compared with LAM monotherapy, ADV+LAM and ETV had an higher response rates at weeks 12,24,48 and 104. HBV viral load dropped sharply during the first four weeks. In 46%,49%;79%,78%;and 95%,92% patients, the level became undetectable from week 24,48 and 104, respectively. HBVDNA breakthrough was detected in 1.67%(ETV) and 36.1%(LAM) of monotherapy and 11.5% of combination therapy patients. The M204 V/I mutation was detected in 1.67%,34.4% and 11.5% of each group, respectively. No elevated serum creatinine were found in three groups through the therapy course.

Conclusion: Lower rates of resistance, lower serum HBVDNA levels and higher rates of HBeAg seroconversion were seen in the combination therapy after two years.

http://dx.doi.org/10.1016/j.ijid.2014.03.1085

Type: Poster Presentation

Final Abstract Number: 57.025
Session: Virology and Viral Infections (Non-HIV) I
Date: Friday, April 4, 2014
Time: 12:45-14:15
Room: Ballroom

An outbreak of pneumonia due to adenovirus type 11 in Japan

Y. Wakabayashi[1], S. Suzuki[1], Y. Yoshino[2], N. Kurouzu[3], K. Marumo[4]

[1] *The University of Tokyo, Tokyo, Japan*
[2] *Teikyo university, Tokyo, Japan*
[3] *Nerima hikarigaoka hospital, Tokyo, Japan*
[4] *Tokyo metropolitan police hospital, Tokyo, Japan*

Background: Outbreaks of the adenovirus group of infections are reported often in many countries, especially among young people who live in the same types of circumstances. Adenovirus types 3, 4, 7, and 21 have the potential to cause pneumonia. In contrast, adenovirus type 11 may cause cystitis, but cases of pneumonia due to adenovirus type 11 were thought to be very rare.

Methods & Materials: In Tokyo, Japan, from April to July 2009, 74 young patients who live in the same dormitory presented at one municipal hospital with similar symptoms including fever, cough, and sore throat. Of these, 15 patients were diagnosed with pneumonia. To determine the outbreak of the pneumonia, sputum and blood samples were collected for culture. Adenovirus rapid antigen tests and adenovirus blood antibody tests were also carried out. One patient underwent a transbronchial lung biopsy. In addition, their demographic data and the clinical features and courses of all 15 pneumonia cases were reviewed.

Results: The average patient age was 25.5 ± 3.74 (standard deviation) years old. *Streptococcus pneumoniae* was detected by sputum culture in one sample, but nothing was detected in all other blood samples. Adenovirus rapid antigen tests were positive in 2 of 9 cases (22.2%). Blood levels of adenovirus type 11 antibody titer were elevated in 4 of 7 cases (57.1%). Histopathology showed smudge cell formation, and the test of adenovirus type 11 polymerase chain reactions was positive for lung tissue biopsy. All cases resolved without specific treatments.

Conclusion: We determined the outbreak of a pneumonia group infection by adenovirus type 11. Although pneumonia by adenovirus type 11 was thought to be very rare, an adenovirus antigen or antibody check including adenovirus type 11 should perhaps be carried out in cases of pneumonia group infection among young people.

http://dx.doi.org/10.1016/j.ijid.2014.03.1086